

1   **Claims 1 – 17 (cancelled)**

1   **Claim 18. (new)** A classification and management system for patients with  
2   lower extremity arterial occlusive disease comprising a network of remotely  
3   located computers integrated to implement the steps of:

- 4       • examining a patient at a healthcare facility with lower extremity arterial  
5       occlusion disease,
- 6       • collecting patient data including physically observable conditions of the  
7       patient's lower extremities and noninvasive arterial pressure and blood  
8       flow data,
- 9       • entering and storing the collected patient data in the memory of a  
10      computer at the healthcare facility,
- 11      • transmitting said collected patient data from the healthcare facility  
12      computer to a computer at an evaluating authority,
- 13      • receiving and storing the collected patient data in the computer at the  
14      evaluating authority,
- 15      • reviewing and comparing said collected patient data against a medically  
16      accepted set of disease specific criteria at the evaluating authority to  
17      classify patients as "potentially at risk" and "not at risk" of developing  
18      complications of arterial occlusive disease,
- 19      • entering and storing patient classification data in the memory of the  
20      computer at the evaluation authority,
- 21      • transmitting said patient classification data from the evaluating authority  
22      computer to the computer at the healthcare facility,
- 23      • receiving and storing the patient classification data in the computer at  
24      the healthcare facility,
- 25      • referring patients classified as "potentially at risk" of arterial occlusive  
26      disease to an accredited laboratory for noninvasive vascular evaluation,
- 27      • transmitting the "potentially at risk" patient data from the healthcare  
28      facility to the accredited laboratory,
- 29      • entering and storing the "potentially at risk" patient data in a computer  
30      at the accredited laboratory,
- 31      • evaluating those "potentially at risk" patients at the accredited  
32      laboratory against medically accepted criteria,

- 33 • entering and storing the data results of said noninvasive vascular  
34 evaluation in the memory of the computer at the accredited laboratory,
- 35 • transmitting said stored data results from the accredited laboratory  
36 computer to the computer at the evaluating authority for final  
37 classification,
- 38 • receiving and storing the stored data results in the computer at the  
39 evaluating authority,
- 40 • receiving the data and classifying each patient at the evaluating  
41 authority against medically accepted criteria as "at risk" or "not at risk"  
42 of developing arterial occlusive disease,
- 43 • entering and storing patient classification in the memory of the  
44 computer at the evaluation authority,
- 45 • transmitting said "at risk" or "not at risk" patient final classification from  
46 the evaluation computer to the computer at the healthcare facility,
- 47 • entering and storing said "at risk" or "not at risk" patient final  
48 classification at the healthcare facility computer,
- 49 • referring patients from the healthcare facility computer database having  
50 a final classification of "at risk" for critical ischemia with associated  
51 extremity lesions and patients with noninvasive evidence of severe  
52 ischemia to a vascular surgery facility for vascular surgical assessment  
53 to determine whether revascularization is necessary,
- 54 • reviewing the data and assessing such "at risk" patients against  
55 medically accepted criteria as "clinical indication for operation" or "no  
56 indication for operation" at the vascular surgery facility,
- 57 • electing revascularization and periodic management system evaluation  
58 at the healthcare facility or routine wound care and periodic reevaluation  
59 at the healthcare facility by patients assessed as "clinical indication for  
60 operation",
- 61 • monitoring patients assessed as "no indication for operation" by the  
62 healthcare facility with increased precautions to monitor for detection of  
63 any visible deterioration of the patient's lower extremities that would  
64 require reassessment,
- 65 • referring patients having ulcers, pain or gangrene at the time of "no  
66 indication for operation" assessment for reassessment,

- 67 • referring patients classified as “no indication for operation” that develop  
68 ulcers, pair and/or gangrene to the vascular surgery facility for  
69 reassessment,
- 70 • reassessing the referred patient at the vascular surgery facility against  
71 medically accepted criteria as “no indication for operation” or “clinical  
72 indication for operation”,
- 73 • entering and storing the reassessment in a memory of a computer at  
74 the vascular surgery facility,
- 75 • transmitting the reassessment of “no indication for operation” or “clinical  
76 indication for operation” from the vascular surgery facility computer to  
77 the computer at the evaluating authority for reevaluation as “no  
78 indication for operation” or “clinical indication for operation”,
- 79 • transmitting the reevaluation from the evaluating authority computer to  
80 the computer at the healthcare faculty with the appropriate medical  
81 procedure and regimen,
- 82 • treating and monitoring patients classified as “not at risk”, “at risk” and  
83 assessed as “no indication for operation” or “clinical indication for  
84 operation” at the healthcare facility,
- 85 • receiving and storing patient treatment and progress data in the  
86 memory of the computer at the healthcare facility,
- 87 • providing “not at risk” patients without limb ulcers routine care and  
88 precautions at the healthcare facility,
- 89 • providing “not at risk” patients with limb ulcers routine wound care at the  
90 healthcare facility,
- 91 • providing “not at risk” patients with limb ulcers periodic reevaluation by  
92 the evaluating authority,
- 93 • entering and storing the periodic patient reevaluations in the memory of  
94 the computer at the evaluating authority,
- 95 • providing “at risk” patients assessed as “no indication for operation” or  
96 “operation not elected by patient”, and “clinical indication for operation”  
97 patient undergoing revascularization at the vascular surgery facility with  
98 intensive wound care at the healthcare facility,
- 99 • entering and storing patient treatment and evaluation of patients in the  
100 memory of the computer at the vascular surgery facility,

- 101 • transmitting the patient treatment and evaluation data of patients from  
102 the vascular surgery facility to the healthcare facility,
- 103 • receiving and storing the patient treatment and evaluation data of  
104 patients in the computer at the healthcare facility,
- 105 • reviewing and providing periodic reevaluations of "at risk" patients data  
106 assessed as "no indication for operation" or "operation not elected by  
107 patient" with increased precautions at the healthcare facility.